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Decreasing Interruptions at the Bedside

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Clinical Leadership Theme

Still a relatively new role in healthcare, a Clinical Nurse Leader (CNL) role was created to better promote and focus on the improvement of quality and safety outcomes for patients and patient populations. In doing so, these nurse leaders work along side an interdisciplinary team to oversee the care, coordination, and integration of care for a specific group of patients to ensure optimal outcomes (AACN, 2016). This project aims to support delivery of optimal and safe patient care that exudes professionalism, increases patient satisfaction, decreases potential for errors and ultimately improves patient outcomes. With intentions to decrease the number of interruptions at the bedside, a CNL is much needed as a Team Manager and Systems Analyst/ Risk Anticipator to determine a well-integrated solution that promotes healthcare professionals' ability to perform holistic patient care.

Statement of the Problem

As modern technology has allowed for faster and easier processes, in many ways, technology has created barriers to today's healthcare professionals' practice. Currently, many hospital institutions have adopted the use of a mobile devices as a means to notify a clinician of specific requests of a patient and/or the family, coordinate care among other healthcare professionals and departments, as well as alarm a clinician of an emergent situation. So while these mobile devices were initiated for valid concerns, safer practices need to be discovered. Thus, keeping these interruptions to a minimum during specific tasks, such as during medication administration is crucial.

Interruptions are a threat to patient safety. As evidence has shown high frequency disruptions result in decrease awareness and caution, thereby leading to a high risk for medication error. In fact, according to the Institute for Safe Medication Practices (2012), the risk

of any medication error increases 12.7% with each interruption. This percentage of risk only increases with the number of interruptions. The Institute of Medicine (IOM) (1999) estimates that 40,000 to 98,000 deaths per year in the United States can be attributed to medical errors. This data and knowledge of these risks upon admission into a healthcare facility creates skepticism and distrust among the general population towards clinicians. Not only do interruptions have the possibility of devastating and irreversible mistakes during medication administration, they lower rapport between patient and clinician, thus making the interaction less rewarding for both parties. Therefore, solutions are needed to decrease the risk of harm patients are exposed to upon admission. Healthcare facilities should be signs of safety and hope to populations around the world.

Project Overview

The study took place at a 375-bed Trauma 1 research and academic institution in a large Southern California city in the United States. On the particular floor this study was chosen for, a high number of patients are either received from the Emergency Room or Intensive Care Units, as patients are being stabilized and sent to lower acuity floors, discharged home, or a skilled nursing facility. For all intents and purposes, this unit is an intermediate step between an Intensive Care Unit and a Medical Surgical Floor. Here, patients require a high level of skill nursing care and every two hour interventions and hourly surveillance. Furthermore, a variety of medical teams such as, Trauma, Hepatobiliary, Urology, ENT, Cardiothoracic, Colorectal, and on occasion Medicine, admit their patients to this particular unit for the close observation and high quality of care. Despite the good collaboration between nurses and respective medical teams, respiratory therapist, physical therapist, speech therapist, occupational therapists, unit secretaries and nursing assistants contribute to make a robust interdisciplinary team.

Often these patients require cardiac monitoring, complex dressing changes, advance equipment such as ventilators and bipap/c-pap machines, and extensive education on new disease processes. Therefore, the nurses of this unit can have up to three patients at a given time. In order to help alleviate some of the work load from nurses, the floor has three nursing assistants to help patients complete their activities of daily living, such as voiding, brushing their teeth, ambulating, and taking vital signs every four hours. Each nursing assistant is assigned nine to ten patients. Furthermore, a monitor tech is always staffed twenty-four hours of the day to observe and note of any abnormalities in patient rhythms or desaturations. In addition, this unit staffs a secretary that assists in answering call lights, incoming calls from patient families and doctors, ensure supplies are stocked, as well as, assist patient flow and other ancillary duties if necessary. All staff are required to answer calls and call lights as time permits, however, unit secretaries are namely responsible for this task. Messages are often relayed to the individual nurse by calling the hand held devices, distributed at the start of shift. These handheld devices only receive phone calls, they are not capable of text messages or pages.

While some nurses are able to ignore a ringing phone during medication administration and others choose to forgo their handheld device completely during completion of a task, the majority of nurse do not feel comfortable with either solution. Handheld devices are a blessing and a curse. As nurses receive a high volume of interruptions, whether it be to complete an activity of daily living, or answer a concern phone call, these distractions pull clinicians in different directions every day in their practice.

Rationale

Early on, a time study was completed to observe the number and types of interruptions nurses encounter (see Appendix B). The researcher documented the time of interruption, the task

the nurse was completing, as well as the cause of the interruption. This observation took place over two weeks, for four shifts on both, days and nights. During this time, 64 tasks at the patient bedside were observed. The data was staggering. Key medication times were definite based upon the large amount of medications administered at one occurrence. Thus was defined as 0900-1100 on day shift and 2100-2300 on night shift. On average nurses were interrupted 3-4 times during high volume medication administration times from 0900-1100 and 2100-2300 (See Appendix B). Throughout a shift, nurses averaged 6-7 interruptions. Majority of these interruptions were phone calls from the secretary, nursing assistant or another nurse. Most of the time it was not urgent, either requiring a double check, verification of tele, or help to complete an activity of daily living i.e. bathroom needs, ambulating, turning, or getting to a chair for another patient.

Following this time study, a survey (see Appendix C) was ruled out to determine nursing input on the high volume of interruptions (see Appendix H-Appendix K). 30 nurses were surveyed and when asked how often they felt interrupted during each medication administration, 2% felt they were always interrupted (90-100% of the time), 60% felt they were usually interrupted (45-89% of the time), while 38% reported they were sometimes interrupted (1-44% of the time). Furthermore, 25 of these nurses felt they were interrupted most in their patient's room and 29 felt obligated to answer the phone call, even while in the middle of completing a patient task. 100% of nurses reported phone calls as an interruptions. When asked for their input and suggestions to prevent interruptions, 12 reported improved staff culture, 5 felt wearing a sash, medication vest or lanyard during medication administration would be more effective, and 20 felt interruptions were inevitable and just "part of the job."

Upon collecting observed and surveyed data, a thorough evaluation of the current process to completing a task was completed. At the institution of this study, the Lean Six Sigma

Methodology was adopted, therefore this method of evaluating the current process, as well as completing a failure modes and effect analysis was crucial to identify all possible failures that could lead to an interruption or break in bedside care (see Appendix E). From this keen look of the current process, it was determined understaff, heavy patient workload with long task lists, lack of or poor communication between staff, lack of visibility due to layout of the patient rooms with respect to the nurses' station, along with the current practice utilizing the chain of command to respond to a call light, and handheld devices were all possible sources to interruptions and distractions.

More censorship, by determining the needs of the patient and being aware of key medication pass times should be a prerequisite to transferring phone calls. So far literature has not proven the effectiveness of better triaging phone calls or call lights, rather it points out that a large number of adverse drug events (ADE) are preventable; occurring most frequently at the drug administration step of the medication use process, with the least amount of interception (California Healthcare Foundation, 2001). While their is a set of checks and balances during administration of medications, administration errors are least likely to be intercepted because this last step of the medication use process gets the least amount of support from redundancy or "double checking" (California Healthcare Foundation, 2001). Interruptions only increase the risk to this already high risk task. After a thorough review of the possible sources to interruptions at the bedside, handheld devices were chosen as the focus of this project.

Literature Review

Studies have agreed in need of better management of interruptions at the bedside. This is largely in part because distractions and interruptions contribute to medication errors. An interruption is defined as anything that draws away, disturbs, or diverts attention from the current

desired task forcing attention on a new task, at least temporarily (ISMP, 2012). Qualitative studies and retrospective review of incident reports have increasingly suggested that interruptions are a contributory cause of Medication Administration Errors (MAE) in hospitals (Raben and Westbrook, 2014). In fact, studies found that 88.9% to 90% of interruptions resulted in negative consequences, such as delay in treatment, loss of concentration, and a greater chance of error in the administration of medicine (Montessori, Avelar and Pedreira, 2015). In Texas, at the University of Texas Health Science Center, Brixley, Robinson, Tang, Johnson, Zhang and Turley (2005) found most interruptions were consistent with pagers, telephones and often presented a problem, placing the nurse at higher risk for error during re-administering. These disruptions in a nurse's routine, causes a break in work and thought process, therefore increasing risk of error. Medication administration demands full attention from nurses to ensure accurate dosages and preparations.

At the bedside, nurses play a key role in the delivery of safe, quality healthcare. Medication error is the eighth leading cause of death in the United States with an estimated annual cost of $17 to $29 billion (Banning, 2006). Furthermore, medication errors lead to decline in patient progress, consequently leading to an increase in hospital length of stay. A patient's hospital length of stay associated with medication error is increased by 4.6 days with an increased cost of $4500 per patient (Mayo and Duncan, 2004). Therefore, it is important to decrease this risk for error and stop contributing to this epidemic. Yet before curing a disease, it is important to understand the disease process. According to Potter (2005) 47% or interruptions occurred during nursing interventions and 22% during medication preparation. And surprisingly, instead of ignoring the interruption, many nurses accepted the interruption. According to the Institute for Safe Medication Practices (2012), the risk of any medication error increases 12.7%

with each interruption, and the risk of a harmful medication error is doubled when nurses are interrupted 4 times during a single drug administration and tripled when interrupted 6 times. The statistics are alarming. In summary, these interruptions need to be kept at a minimum during such significant tasks.

As means to resolving the challenge, institutions across the nation have added "no interruption zones," "do not disturb" colored vests, sashes or aprons, further staff education, and a reduction in alerts, alarms, and notices to their practice (Relihan O'Brien, O'Hara, and Silke, 2010).

Inspired by the aviation industry's sterile cockpit rule, no interruption zones (NIZ) were locked at as a promising method to decreasing interruptions during the process of medication administration (Anthony, Wiencek, Bauer, Daly and Anthony, 2010). The purpose of NIZs were to eliminate conversations and activities unrelated to medication (Anthony et al., 2010). Anthony et al. (2010) applied the Federal Aviations idea to his healthcare setting and found a 40.9% decrease in interruptions during medication administration. In conclusion, no interruption zones proved to be a worthy candidate to solving interruptions.

Another method institutions have trailed are use of tabards, or vests, with inscription "do not disturb" or visible signage. Yet because it has not been an established practice, many nurses feel uncomfortable and awkward wearing them. When evidence is lacking, the incentive to wear a tabard will be especially weak and one can become reluctant to implement interventions (Glasziou, Ogriric and Goodman, 2011). In Verweji, Smelters, Maaskant, and Vermeulen's (2014) study looking at the effectiveness of tabards on decreasing interruptions, they found a 75% decrease in the number of verbal interruptions. While the number of non-verbal interruptions also decreased, this intervention was less promising for interruptions applied in our

particular institution because most of our interruptions involved a received call to the individual's handheld device.

Perhaps this is true because unless the nurse was visible to unit clerks the phone call would still be forwarded. When he evaluated nursing perception after the study, Verweji et al. (2014) found a high concern with hygiene issues that come with daily use and sharing of a sash. In addition, some patient feedback was they felt it gave off the wrong signal; some patients complained feeling hesitate to verbalize their needs when they saw the nurse wearing the sash. While tabards appear to be a promising solution, more studies should be completed to determine its effectiveness on non-verbal, or phone calls to the bedside nurse.

At Stanford Hospital and Clinics, Medication Pass Time Out was a multi-hospital initiative designed to improve patient outcomes throughout Bay Area Hospitals (Nguyen, 2014). This movement was based off a zero tolerance for medication error as well as setting the standard for safe medication administration. Medication Pass Time Out was a new policy that "built a protective hour with no interruptions early in a shift for a nurse to exclusively focus on reconciling medication orders, administering medications, checking labels and charting medication administration" (Nguyen, 2014). After six months of implementation the medical surgical pilot unit reported improved number of interruptions, from 81% to 99% and medication administration error rate from 98% to 100% (Nguyen, 2014). While their numbers speak for themselves, implementation on a critical care unit or progressive care unit could be cumbersome because many of their patient population requires a high frequency of medication administration over a 12 hour period.

Lastly, Freeman, Lee-Lehner and Pesenecker (2012) consolidates all the studies' interventions, lanyards, no interruption zones, clerk triage of phone calls and pages during peak

medication times, patient and family education on peak medication times, scripting cards and regular rounding, to test their effectiveness. Over a three month period post implementation, reported medication errors were reduced by 28 events when compared to the previous year (Freeman et al., 2012). In addition before implementing the bundle of interventions, 41 medication errors were reported; only 13 medication error were reported post-implementations. Freeman et al. study suggests interruptions and medication errors cannot be solved with one type of mediation, instead the problem requires a multi-modal approach.

Methodology

As a clinical nurse leader it is important to evaluate current practices to choose a method of change accordingly. Many healthcare organizations have used Kurt Lewin's Theory to understand human behavior as it relates to change and patterns of resistance to change. Also referred to as Lewin's Force Field Analysis the model encompasses three distinct phases known as unfreezing, moving and unfreezing or refreezing (Bozak, 2003). The intention of the model is to identify factors that can impede change from occurring; forces that oppose change often called restraining or 'static force' and forces that promote or drive change, referred to as 'driving forces' (Sutherland, 2013). When healthcare organizations can fully comprehend the behaviors that dive or change their institution, then work to strengthen the positive driving forces can begin and ultimately change can occur successfully (Bozak, 2003).

Lewin's model of change proposed that bringing about meaningful structured change meant supporting employees in psychologically "unfreezing" from a point of comfort with current practice. Only after this step can "moving" or "unfreezing" can occur, in which employees are asked and encouraged to alter their values, take ownership of needing change, exploring the alternative and defining and implementing solutions. Once these steps have been

accomplished, only then can "refreezing" occur, in which change solution has been identified, established, and integrated in an individual's daily practice.

Unfreezing

A team leader is an initiator of change, a vision for potential, and demander for excellence. In this step it is crucial to assist staff in understanding the need to address and identify a solution to decrease the number of interruptions at the bedside. "Motivation for change must be generated before change can occur. One must be helped to re-examine many cherished assumptions about oneself and one's relation to others" (Mind Tools, 2015). Therefore, this predicament will be brought forth to the unit's shared governance council. Here leaders recognized by their colleagues, managers, and supervisors were educated on the summarized assessment and evaluation of the current practice on this specific unit, as well as the supporting literature calling for a need to change.

In addition, preliminary surveys were distributed to nurses on the unit, so to gather their views and thoughts on the cause and solution to interruptions during their care. Next, a summary of these initial surveys were discussed at the following unit practice council meeting, along with a display of possible sources to interruptions. The vote was anonymous, members felt a decrease in phone calls during bedside care, especially during medication administration would be the most effective to increasing patient and nurse satisfaction, as well as, improve safety at the bedside.

After a summary of the initial observation, time study, and literature was given to the unit practice council, the shared governance felt enthusiastic that better management of handheld devices would lead to a decrease in number of bedside interruptions. With that in mind, the unit practice council came up with a process map for triaging phone calls, call lights. This practice

allowed needs of the patient to be addressed, but also gave primary nurses the opportunity to pass medications safely.

Moving or Unfreezing

As suggested by the unit's shared governance council, 0900-1100 and 2100-2300 was termed "protective time," in which nurses would have the opportunity to give their undivided attention to pass medications and complete tasks with interruptions limited to only urgent situations. A major component to the success of the project is better education for unit secretaries. During this stage of the change mode, unit secretaries will be educated on the new process map designed by the unit practice council (See Appendix F). They will be educated that during "protective time," as well as, times when the nurse is preoccupied with completing a task at the bedside, phone calls or call lights will be delegated to the nurses' assistants, break or charge nurse if the situation is not emergent. Furthermore, they will be reminded of helpful dialogue to patients, call lights, and families during high volume medication administration times. This will help to screen unnecessary phone interruptions to the nurse, as well as allow patients and their family to understand their needs have been heard and will be addressed shortly. To avoid any confusion, for the first two weeks, the CNL will be on site to assist the process. This will help promote a smooth transition and ensuring implementation of the new process map.

Refreezing

In the final stages of Lewin's Theory, the process of freezing or refreezing the change practice occurs and leads to a time of "stability" and evaluation (Bozak, 2003). Therefore, a thorough evaluation of reviewing IRs, observation assessment and secondary survey will be performed to evaluate the effectiveness of the new process map, as well as the need for further unit secretary and/or staff education.

Change is often a challenge in healthcare. In fact, the frequent need to change within these environments can produce anxiety or fear of failure in nurses, leading to resistance to change practice. Creating "buy-in" from frontline nurses builds autonomy and ownership of the project, ultimately leading to success (Sutherland, 2013). This was a crucial step in empowering floor nurses whom many reported feeling "in control" or "having a say" of their own practice. Unit secretaries also showed gratitude and appreciation for an in depth developed process map. They felt this was an easy method to understand and was "straight and to the point." One particular security stated with this new process, she felt a decrease in anxiety when attempting to locate a nurse during "protective time" because she felt she had options and a clear idea of the next individual to reach out to.

Cost Analysis

Currently, the costs to implement a change in practice would come from educating staff on the new protocol. This would take approximately thirty minutes to an hour of education to staff on the unit, such as nurses, nursing assistant, monitor techs and secretaries. The cost of educating nurses, nursing assistants, monitor techs and secretaries would be approximately $4300. Additional education and reminding would be completed during huddle prior to shift over a 2-3 week period, until all clinicians at the bedside have a good understanding and grasp on the change in practice.

Data shows that approximately $16.4 billion are spent on resolving approximately 3.8 million preventable medication errors within the inpatient setting (NEHI, 2010). This amounts to roughly $4210 spent on a a single case. Analyzing the cost for better triage of phone calls, illustrates the same cost spent to recover one single case. Therefore, it is worth while to invest in the education so that more dollars can be saved from trying to service recover these adverse

events. In conclusion, providing one hour of education to staff pays for the cost of one medication error.; implementing this project would not only help to save costs spent on resolving medication errors, and improve patient outcomes, but increase clinician and patient satisfaction.

Timeline

This project began in February 2016 and concluded in late April 2016. Refer to Appendix A for Gnatt Chart. Yet several set backs did occur, consequently the start date for implementation was pushed back.

Expected Results

After improved triaging and management of call lights, incoming phone calls from all sources, and other alarms, the unit should expect an overall decrease in medication errors, reflected in a 40% decrease in the number of incident reports and a 60% reduction in the number of observed interruptions at the bedside. This change in practice will improve rapport between staff and patients, foster better communication and environment for healthcare professionals to perform optimal, patient-centered care that mitigates professionalism, increases patient satisfaction, decreases potential for error, and ultimately improves patient outcomes.

Evaluation

While only over a limited period of time, better management and triaging of phone calls on this unit illustrated promising results and an opportunity to improve clinical staff outlook on their handheld devices, in addition to decreasing interruptions. The only alterations to the original plan was “protective time,” as well as, the amount of time allotted for the intervention. Originally, this unit council determined best practice would be to limit interruptions to only urgent or emerge situations from 0900-1100 and 2100 and 2300 because of the high volume of medication pass at these times. Yet because the number of high acuity patients, many nurses felt

the intervention should not be constrained to these time frames, but instead over an entire shift. After much consideration and input from unit secretaries, unit practice council utilized a call light/assignment screen that was displayed 24 hours on two monitors, each on either side of the unit. Originally, this call light/assignment screen was utilized to keep track of patient rooms calling so that their needs could be addressed in a timely manner. In addition, it allowed unit secretaries to update the assignment live as patients are discharged, admitted or transferred. So for purposes to share information and allow nurses and nursing ancillary on either side of the unit to see if an individual was called to a specific room, the screen was split. On one side the call light/assignment sheet was displayed, while the other side displayed a Medication Pass Call Sheet (see Appendix G) that could be updated from either side of the unit live.

Another set back that could have effected the outcome was the number of opportunities the clinical nurse leader had to implement the project. During the initial discussion of the project, the unit manager was out. Therefore the unit practice council, educators, and assistant manager had mad the decision to move forward with the project. After returning, the unit manager expressed concern that unit secretaries do not have enough knowledge to make decisions of whether or not a situation is emergent or non-emergent. Ultimately, the unit manager was not comfortable with the project. After some discussion, the unit manager and the clinical nurse leader agreed the CNL could trial the project on nights the unit did not staff a secretary. This only allowed for four shift to observe the effectiveness of the intervention.

At the end of the implementation of the intervention, the same nurses were asked to fill out the questionnaire again, as to determine whether or not their outlook had changed post-intervention. After a thorough review of the surveys, no nurses reported always being interrupted and 23% felt they were usually interrupted, while 75% of nurses felt they were only interrupted

sometimes (see Appendix H- Appendix K). In addition, when incident reports were reviewed, upper management and education found none involving medication administration. Still, this data could be skewed as there was not an optimal amount of situations and time to evaluate and collect data. Therefore, it is important that incident reports are reviewed again later, at the three month and six month mark post-intervention.

As proven by literature, solving interruptions is multi-modal. Fortunately for this institution, it is a relatively new built, in 2012. As a result, all designated medication rooms have a door and automatic scan locks. Such interventions support creating a safe environment. Furthermore, hourly rounding has been integrated into the standards of care for this particular unit. This intervention already helps to decrease call lights. Each of these implementations is a stride to improving outcomes and patient work flow. Hopefully this added intervention will be another leap towards lessening the gap between technology and bedside care.

Nursing Relevance

Nurses of this century are asked to do more than ever before. They not only manage patient care, but also charged with improving quality, maintaining safety, developing policy, coordinating education and training, controlling cost and-most importantly- communicating (Hanson, 2009). Technology coupled with new strategies has been integrate in institutions to meet benchmarks. And while technology has allowed for advancements, they also have consequences. Now, nurses are not only required to care for the patient, but also computers, monitors, and devices. This leads to an overall increase of possible interruptions at the bedside. In conclusion, it is important that healthcare institutions empower nurses to have a voice whether it be to just plainly refuse and say no to the interruption or to recognize if the task could allow for another nurse or nursing ancillary. Ultimately, everyone is accountable for what is done and not

done in delivering the appropriate care to patients and families (Hanson, 2009). By determining a solution to decreasing interruptions nurses will have an opportunity to provide safe, holistic patient care that parallels improved patient outcomes and patient satisfaction.

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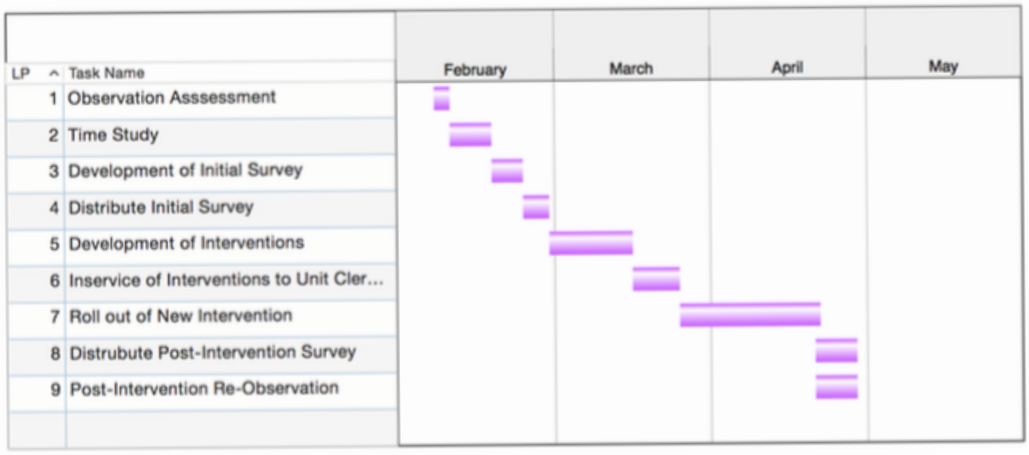
APPENDIX A

Gnatt Chart



APPENDIX B

Time Study Data for Interruptions during Completion of a Task

Time of Interruption	RN	phone call	nursing ancillary	other staff member
0700-0800	1	2	0	2
0900-1000	2	3	2	3
1100-1200	1	1	2	1
1300-1400	1	2	1	2
1500-1600	2	3	2	1
1700-1800	1	2	2	1
1900-2000	1	1	0	1
2100-2200	1	2	2	1
2300-0000	1	1	2	0
0100-0200	0	0	1	0
0300-0400	1	0	2	0
0500-0600	1	2	1	1
summary	13	19	17	13

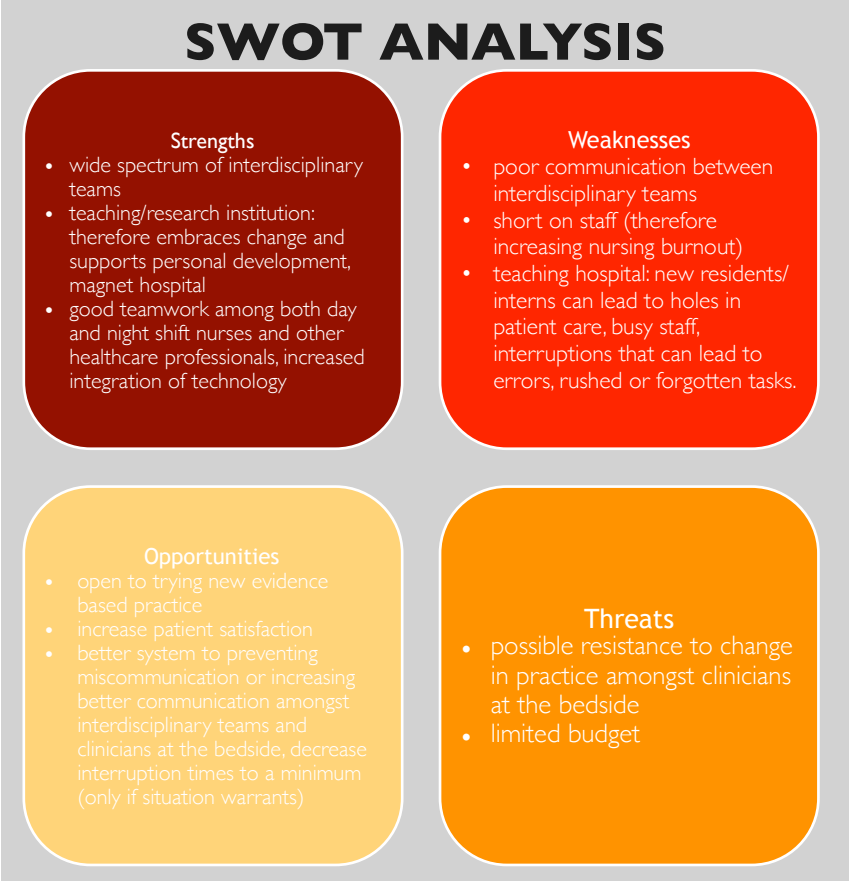
APPENDIX C

Medication Administration
NURSE Questionnaire

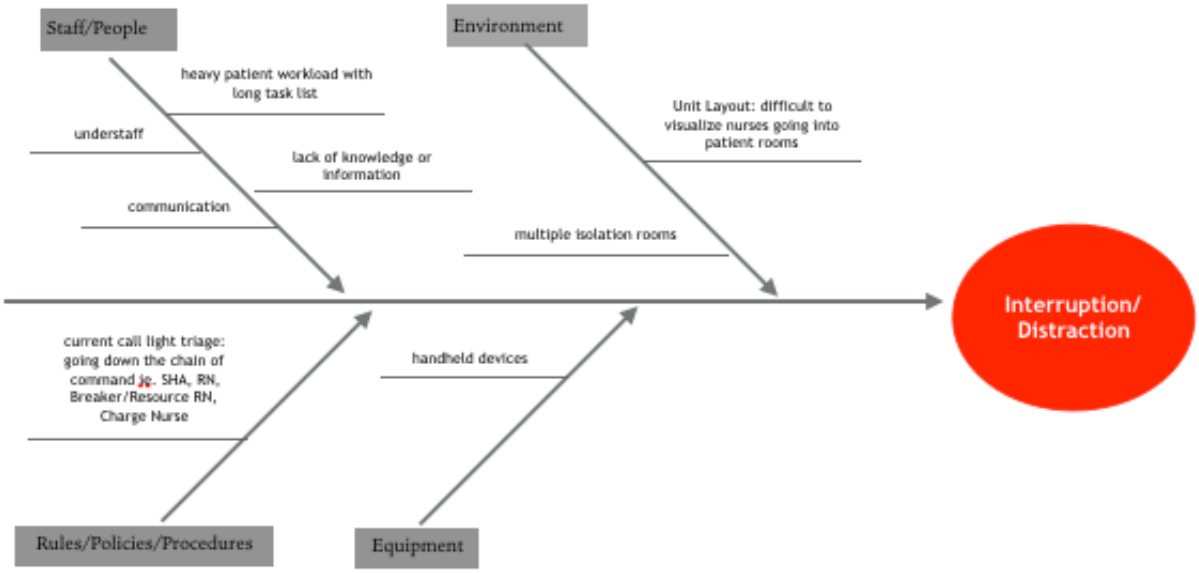
1. How often are you interrupted during each medication administration?
   - ☐ Always (90-100%)
   - ☐ Usually (45-89%)
   - ☐ Sometimes (1-44%)
   - ☐ Never (0%)
2. What types of interruptions do you face while administering medications. *Select all that apply.*
   - ☐ phone calls
   - ☐ waiting in line for pyxis
   - ☐ waiting for medication verification, either by another nurse or pharmacy
   - ☐ another staff to help another patient ambulate, or go to the bathroom.
   - ☐ another nurse needs assistance
   - ☐ there are no interruptions
   - ☐ other: _____
3. Where do you feel you are interrupted the most? Select all that apply.
   - ☐ patient's room
   - ☐ medication room
   - ☐ hallway
   - ☐ other:_____
4. What do you do when you are interrupted during medication administration? Select all that apply.
   - ☐ always answer the interruption
   - ☐ ignore the interruption
   - ☐ it depends on the task I am completing
   - ☐ other: _____
5. When you receive a phone call do you feel obligated to answer?
   - ☐ yes
   - ☐ no
6. Have you ever answered the phone in front of patient before (in a patient room)?
   - ☐ yes
   - ☐ no
7. Which do you feel would help prevent interruptions during medication administration? Select all that apply:
   - ☐ Improved staff culture regarding medication pass (coworkers choosing to respectfully not interrupt you during medication pass)
   - ☐ wearing medication vest, sash or lanyard during medication administration to alert others to not interrupt
   - ☐ better management of call lights, phone calls
   - ☐ interruptions are "inevitable"
   - ☐ other suggestions: _____

Thank you for your input and your time!

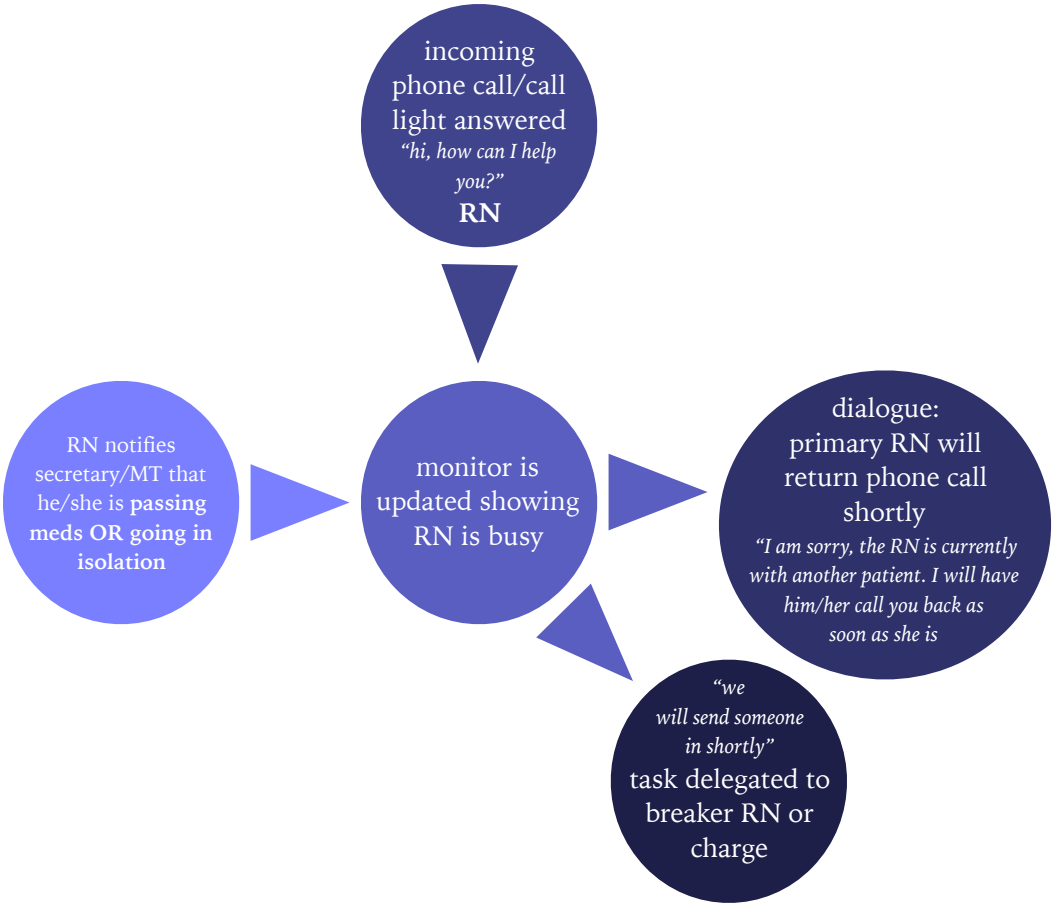
APPENDIX D: SWOT ANALYSIS



APPENDIX E: Root Cause Analysis



APPENDIX F: Process Map for Triaging Phone Calls and Call Lights

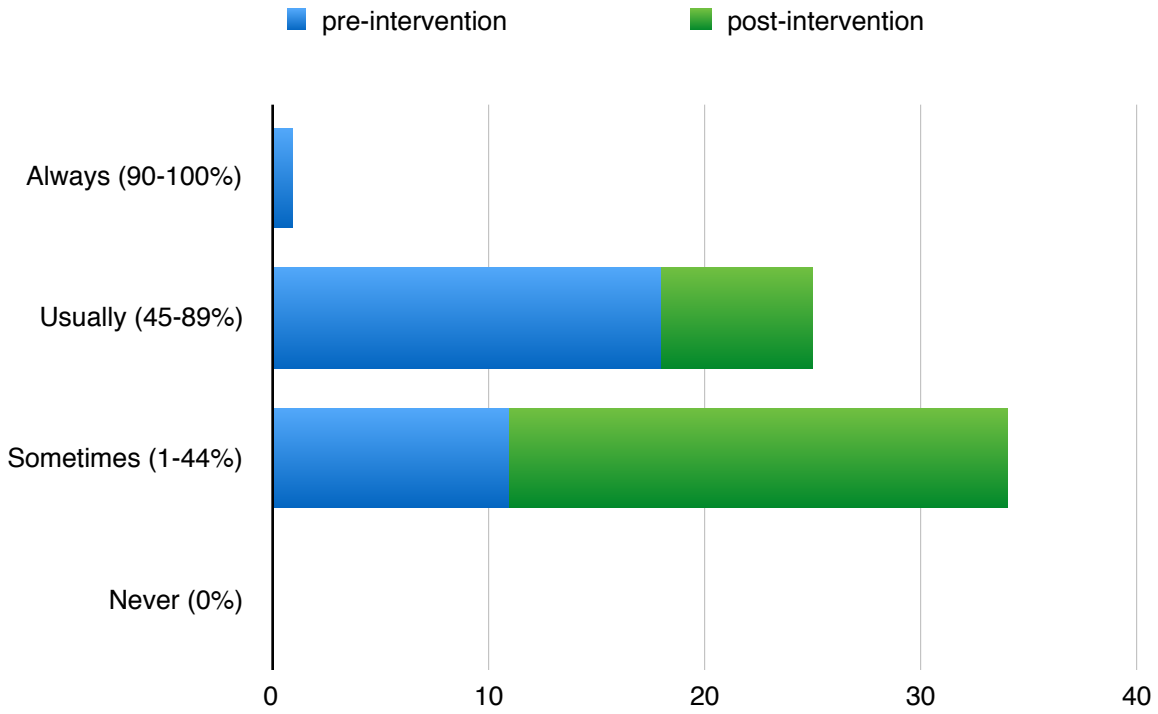


APPENDIX G: Medication Pass Call Sheet

Nurse	Time	Med Pass	Off Med Pass	Message

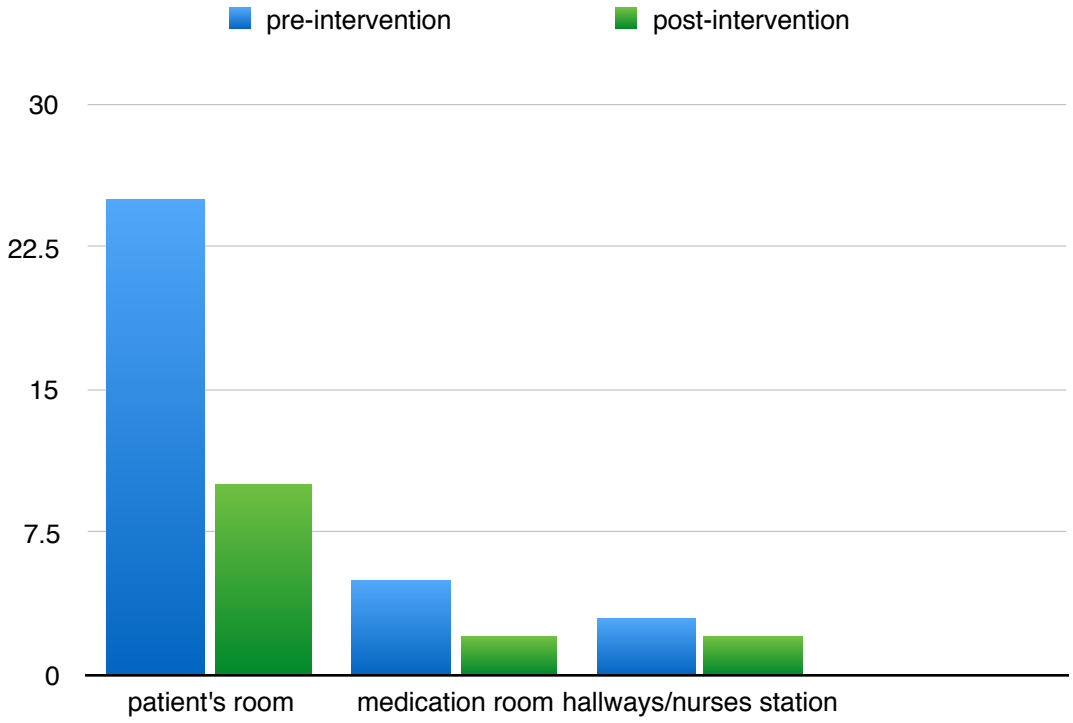
APPENDIX H

Pre-Intervention and Post-Intervention: Question 1 Nursing Survey

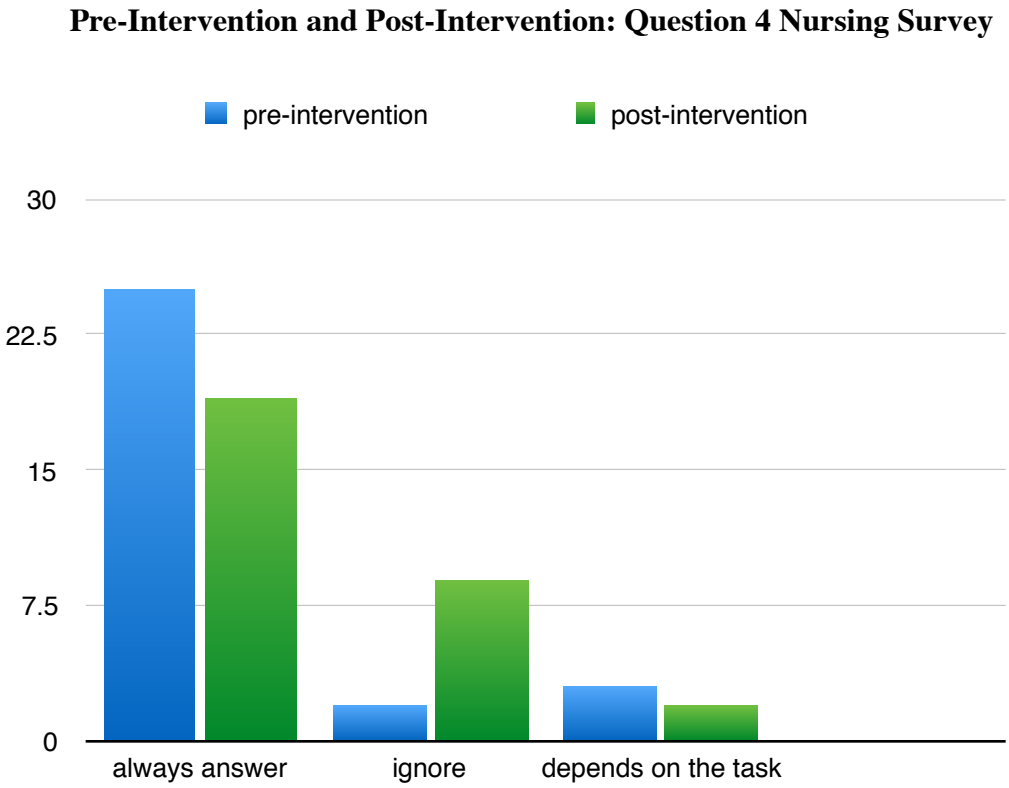


APPENDIX I

Pre-Intervention and Post-Intervention: Question 3 Nursing Survey



APPENDIX J



APPENDIX K